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## NOTICE OF ALLOWANCE AND FEE(S) DUE

23486 7590 05/19/2010 SHUTTLEWORTH & INGERSOLL, P.L.C. 115 3RD STRIET SE, SUITE 500 P.O. BOX 2107

CEDAR RAPIDS, IA 52406

EXAMINER			
HEINRICH, SAMUEL M			
ART UNIT	PAPER NUMBER		
2742			

DATE MAILED: 05/19/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/735,706	12/16/2003	Karl Schreiber	20560-0415	3451	
TITLE OF INVENTION: METHOD FOR JOINING COMPONENTS IN TITANIUM ALUMINIDE BY BRAZING					

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	08/19/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

## PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

appropriate. All further indicated unless corrects maintenance fee notifica	correspondence includir ed below or directed oth tions.	ng the Patent, advance on herwise in Block 1, by (a	rders and notification of r a) specifying a new corres	naintenance fees v pondence address	vill be and/o	mailed to the current r (b) indicating a sepa	correspondence address a trate "FEE ADDRESS" fo
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)			Dane	rs. Each additiona	l paper	g can only be used for ficate cannot be used for tr, such as an assignme iling or transmission.	or domestic mailings of the for any other accompanying nt or formal drawing, mus
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CEDAR RAPID	S, IA 52406						(Depositor's name)
							(Signature)
							(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTC	RNEY DOCKET NO.	CONFIRMATION NO.
10/735,706	12/16/2003		Karl Schreiber			20560-0415	3451
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nonprovisional	NO	\$1510	\$300	\$0		\$1810	08/19/2010
EXAM	IINER	ART UNIT	CLASS-SUBCLASS	1			
HEINRICH,	SAMUEL M	3742	219-121850				
1. Change of correspondence address or indication of "Fee Address" (37			(I) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a				
CFR 1.363).  Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.							
PTO/SB/47: Rev 03-02 or more recent) attached Use of a Customer 1 2 reg			2 registered patent atto listed, no name will be	rnevs or agents. It	no nan	ne is 3	
			THE PATENT (print or typ				
PLEASE NOTE: Uni recordation as set fort	less an assignee is ident h in 37 CFR 3.II. Comp	ified below, no assignee pletion of this form is NO	data will appear on the p T a substitute for filing an	stent. If an assign assignment.	ee is i	dentified below, the d	ocument has been filed fo
(A) NAME OF ASSI	GNEE		(B) RESIDENCE: (CITY	and STATE OR O	COUN	TRY)	
Please check the appropr	iate assignee category or	categories (will not be pr	rinted on the patent):	Individual 🔲 C	orporat	ion or other private gro	oup entity Governmen
4a. The following fee(s)	are submitted:	41	b. Payment of Fee(s): (Plea	se first reapply a	ny pre	viously paid issue fee	shown above)
Issue Fee	vo small entity discount p	to the	A check is enclosed.	LE DIEG 2021			
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	s SMALL ENTITY state		D. Applicant is no lon	ger claiming SMA	LLEN	TITY status. See 37 Cl	FR 1.27(g)(2).
NOTE: The Issue Fee an interest as shown by the	d Publication Fee (if req records of the United Sta	uired) will not be accepte tes Patent and Trademark	d from anyone other than t Office.	he applicant; a reg	stered	attorney or agent; or th	ne assignee or other party in
Authorized Signature				Date			
	Typed or printed name. Registration No.  This collection of information is required by 37 CIR 1311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to pre in application. Confidentiality is governed by 51 U.S.C. 12 and 37 U.R.L. 14. This collection is estimated to take 12 manutes to complete, including gallering, preparing an application of the Confidentiality of the Confide				LL. d. LIENTO		
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,706	12/16/2003	Karl Schreiber	20560-0415	3451
23486 75	90 05/19/2010		EXAM	INER
SHUTTLEWOR	TH & INGERSOLL.	P.L.C.	HEINRICH,	SAMUEL M
115 3RD STREET	SE, SUITE 500		ART UNIT	PAPER NUMBER
P.O. BOX 2107 CEDAR RAPIDS, IA 52406		3742 DATE MAIL ED: 05/19/201		

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 22 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 22 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

# Notice of Allowability

Application No.	Applicant(s)	
10/735,706	SCHREIBER ET AL	
Examiner	Art Unit	
Samuel M. Heinrich	3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- 1. This communication is responsive to the Amendment submitted February 09, 2010.
- The allowed claim(s) is/are 1,4-12 and 21-35.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - b) ☐ Some\* c) ☐ None of the: a) 🛛 All
    - 1. A Certified copies of the priority documents have been received.
    - 2. Certified copies of the priority documents have been received in Application No.
      - 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) hereto or 2) to Paper No./Mail Date
  - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. 

DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

- 1. Notice of References Cited (PTO-892)
- 2. Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3. Information Disclosure Statements (PTO/SB/08),
- Paper No./Mail Date 4. ☐ Examiner's Comment Regarding Requirement for Deposit
- of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date
- 7. T Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance

# /Samuel M Heinrich/

Primary Examiner, Art Unit 3742

9. ☐ Other

Application/Control Number: 10/735,706

Art Unit: 3742

# REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance: the method of joining TiAl components with a braze having a melting temperature lower than a melting temperature of the TiAl components comprising particular directly heating only the braze and preventing primary heat input into the TiAl components is not described in the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

## Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Churchill et al and lizuka et al use of laser heating and describe minimizing distortion.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel M. Heinrich whose telephone number is 571-272-1175. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu B. Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 10/735,706 Page 3

Art Unit: 3742

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Samuel M Heinrich/ Primary Examiner, Art Unit 3742